DOCUMENT RESUME

ED 229 307 SO 014 641

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TITLE Selection of a Research Topic in Economic Education.
PUB DATE 8 Oct 82
NOTE 12p.; Paper presented at the Annual Meeting of the Joint Council on Economic Education (Kansas City, MO, October 8, 1982).
PUB TYPE Information Analyses (070) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Economics Education; *Educational Needs; Educational Research; Elementary Secondary Education; Higher Education; *Learning Theories; Literature Reviews; *Research Needs; Teacher Effectiveness

ABSTRACT

A rationale, survey of research findings, and research needs for economics education are offered. The case for the universality of economic literacy has been forwarded by several leading economists. Economics education is seen as an important key for the survival of humanity; the task of the educator is to reduce partial ignorance, misinformation, and lack of foresight. A survey of four major research reviews and recent issues of "The Journal of Economics Education" suggests that past efforts have been narrowly focused or redundant. Also, while economic research is carefully quantified from a statistical stance, outcome measures were less satisfactory than found in science and mathematics educational research. Future research should focus on the teacher's decision-making process on content selection and presentation, academic learning time, and differential benefit gains for students at different cognitive levels. Major issues include investigating how students internally structure and make meaningful the variety of concepts and principles of economics and identifying how psychological and instructional variables assist in student learning. (KC)

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Selection of A Research Topic In Economic Education

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Prepared for the Annual Meeting
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SP 014 681

Introduction

Research efforts reaching back over 20 years have led to enormous gains in communicating basic concepts of Economics more effectively. The work of the early American Economic Association's Committee on Economic Education and the Joint Council staff provided the initial institutionalization of orchestrated research activities. I'm sure that I'm overlooking many individuals but the names of Rendig Fels, Lee Back, Don Paden, Art Welch and Phil Saunders readily come to mind as leaders in these activities. The development of the Test of Understanding College Economics (TUCE), the research seminar at Carnegie-Mellon and the founding of The Journal of Economic Education provided an enormous impetus to research in economic education. The more recent developments, particularly the Master Curriculum Guide, Part I, have enhanced these research efforts. So the assignment, that of delineating the selection of a Research Topic, becomes quite easy.

I. The Case for Economic Understanding

Since the research questions that are addressed really depends upon the role of improved economic understanding, a brief examination of the historical and present rationale for economic education is called for.

The point has been made that extensive formal economic understanding has really not existed, may well not be important, and may well present almost insuperable difficulties in inculcating economic understanding.[1] That extensive formal economic understanding has not, nor does it presently exist is found in the preface to many of the leading texts and in the fund-raising talks of all of Council for Economic Education Directors. The belief that formal economics understanding may not be important is found in fewer texts, but

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[1] William R. Allen, Midnight Economist, Playboy Press, 1981, pp. 65-70. See also p. XV for comments by Milton Freidman.

certainly is mirrored in the initial attitudes that are encountered in economic education workshops. In a recent survey of higher education by Time Magazine, limited reading lists from leading figures in education were solicited. There were no works which would lead to economic understanding included. Moreover, even if we deemed it important, the thinking of those in the public choice school point out the enormous difficulties involved in providing economic understandings that, while of high value to society in general, provide minimal benefit to the individual.

However, the societal benefits of economic education have been extolled since the beginnings of the discipline. While Adam Smith did not recommend its inclusion in the curriculum, he did lay the ground work for some of our perceived difficulties in communicating economics by calling for the substitution of geometry and mechanics for Latin - "which can scarce be of any use."[2]

Thomas Malthus did call for its instruction for "A knowledge of these truths so obviously tends to promote peace and quietness..."[3]

A Scottish Preacher put it even stronger." (Political Economy)...will be found to have pre-eminence over the other sciences, and in acting as a sedative and not as a stimulant to all sorts of turbulance and disorder."[4]

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[2]Laurence Leamer, Economics and Democratic Social Action, 1950, PH.D. Dissertation, Chicago, Illinois, University of Chicago, citing, at p. 115, Adam Smith, An Inquiry Into the Nature and Causes of the Wealth of Nations, Edited by Edwin Cannon. New York: Modern Library, 1937, pp. 737-738.

[3]Leamer, above, at p. 119, citing T. R. Malthus, An Essay on the Principle of Population Vol. II. Everyman ed. London: J. M. Dent and Sons, 1914, p. 214.

[4]Leamer, above, p. 119, citing a work of Rev. Thomas Chalmers in 1826.

More recently, the perceived benefits of economic understanding were stated by Keynes in the General Theory when he noted:

> "...the ideas of Economists and Political Philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Mad men in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas."[5]

The more recent cases for economic education have been made by George Stigler and Kenneth Boulding.[6] Stigler notes that while all knowledge is good, no one can learn everything - and it must be worth the cost. A knowledge of Economics falls under the rubric of public goods, according to him.

Boulding, also, makes a very strong case for the universality of economic literacy. "...Economic Education may well be one of the most important keys for man's survival in coming centuries or even decades. In a complex world, unfortunately, ignorance is not likely to be bliss, and a society in which important decisions are based on fantasy and folk tales may be doomed to extinction."

Further to paraphrase Harry G. Johnson,

> "Support of (Universitites) (Economic Education) is like adherance to a religion or a church - the payoff from doing so is incalculable and problematical, but it is wise to buy insurance against unknown risks."[7]

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[5]John Maynard Keynes, The General Theory of Employment, Interest and Money. New York: Harcourt, Brace, and Company, 1936, p. 383.

[6]George J. Stigler, "The Case, if Any, for Economic Education," The Journal of Economic Education Vol. 1, No. 2. Spring, 1970, p. 77ff and Kenneth E. Boulding, "Economic Education: The Stepchild too is Father of the Man," The Journal of Economic Education, Vol. 1, No. 1, Fall, 1969, p. 7 ff.

[7]Howard R. Bowen, Investment in Learning. San Francisco: Jossey-Bass Publishers, 1977 at p. 431 citing Harry G. Johnson, in K. G. Lumsden, editor, Efficiency in Universities: The Lapaz Papers. Amsterdam, Elsivier, 1974.

A final appeal to authority in developing my personal rationale for improved economic understanding emanates from the very recent work of Thomas Sowell in Knowledge and Decisions.[8]

Sowell makes the point that all losses, personal as well as those imposed on others - are always and everywhere the result of partial ignorance, misinformation, and lack of foresight. Our task then, is to find mechanisms to reduce ignorance or misinformation. On this, we can now turn to a short review of our past efforts in this regard.

II. Survey of Surveys of Research Findings in Economic Education and Other Areas

It is really very easy to find out what we've already learned in our research efforts in economic education. The most appropriate place to begin is the Siegfried and Fels Volume on Research on Teaching College Economics.[9] This volume, which provides an almost complete overview of research through 1978 at the college level, could easily be complemented with the works of my fellow panelists here.[10] George Dawson has produced two surveys, one in 1969 and the other, 1977, which look at the research efforts at both the elementary and secondary levels. Similarly, William Walsted's Doctoral Dissertation contains an excellent chapter reviewing the research until four years ago. A perusal of the latest issues of The Journal of Economic Education, and Jim Shea's "What the Research is Saying About Trade-offs," plus George Dawson's work on attitudes and opinions on Economic Issues will provide a

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[8]Thomas Sowell, Knowledge and Decisions. Boston, Basic Books, 1980.

[9]Rendig Fels and John J. Siegfried, editors, Research on Teaching College Economics. New York: Joint Council on Economic Education, 1982.

[10]Further citations of the literature and included in the suggested reading list at the end of this paper.

sufficient round-up of the kinds of things that we've been exchanging with others at professional meetings and in The Journal of Economic Education.

In two articles by Weisbrod and Yates, included in the Fels-Siegfried volume, partial directions for future research can be found. Both suggest that some of our past efforts may have been too narrowly focused or may have been redundant - in the sense that we may be replicating studies that have already been conducted in other areas. On the other hand, William Becker suggests that economics was the leader in educational research that hadn't yet been pursued by professional education researchers.

To examine this, I did a very, very limited survey of colleagues involved with general measurement and evaluation questions, with science education, and mathematics education. Discussions with them, plus a perusal of their literature, finds support for both camps with respect to research in curriculum and instruction, but excluding research in teacher behavior.

We in economic education receive high marks for pushing the frontiers of production function analysis beyond the simple input-output models. One critique, mirrored in the Mayer paper may be that we attempt to mine the data too much, or rely too much on regression techniques as opposed to other methods. Another suggests that we lack concern about measurement - psychometric problems - in our evaluation instruments - over tests and attitude scales.

Both Mathematics and Science Education literature contain numerous studies on the cognitive and attitudinal outcomes of alternative instructional strategies, curriculum designs, and educational technology. Similar studies in economic education appear to be more carefully quantified from a statistical stance, but the outcome measures were judged to be less satisfactory than found in math and science.

More specifically, the suggestion was made that we should have outcome measures which are more specific - I take this to mean measures which would zero in on a given sub-area or concept. Their reviews, admittedly brief and based upon the Siegfried-Fels survey article and volume, suggest the following as candidates for likely investigation:

1. Teacher's Decision-Making process on content selection and content presentation.
2. Academic learning time.
3. Differential benefit gains for students at different cognitive levels.

The major areas in which mathematic and science education appear to lead to economic education research are generally in the realm of applied learning theory studies. There are exceptions because we have the work of Beverly Armento, Jean Caldwell and Mark Schug. References to a sampling of their activities are included on my short reading list.

III. Selection of a Research Topic

These last cited works provide the point of departure for the direction of future research in economic education that I suggest. We should be examining the process of learning economics much more intensely than we have in the past. Learning theories describe conditions under which learning occurs. So we can look to learning theories to find the component parts of a theory of instruction.

As a historical note, many early commentators in assessing the difficulties of transmitting economic knowledge unknowingly involved a tenet of the cognitive psychologists' schools - that our minds are not blank sheets of paper to be covered with the appropriate understandings, but that instead - the difficulty of communicating economics exists because of the extent of misinformation that individuals possess. Frank Knight was fond of repeating the old Josh Billings phrase "It isn't ignorance that does the most damage,

but knowin' so darned much that ain't so." Knight commented that our task is primarily to teach the obvious, what normally competent adults already know, or would know if they tried to be objective..."[11]

It is very important to recognize that the discipline of economics does have a very well-organized and accepted body of knowledge and understandings that can be effectively communicated. Calls for new theoretical constructs to explain the "new" problems that individuals and societies face are, in my humble opinion, entirely misplaced. Everyone is inclined to think of each period as unique, requiring all sorts of new explanations. This is patently untrue.

Major research questions to be addressed would be:

> In what ways do students internally structure and make meaningful the variety of concepts and principles of economics? What are the contributions of an array of psychological and instructional variables which assist in student acquisition of understandings?

Our own personal shopping list for desired research includes methodological questions, such as the analysis of multiple outputs of cognitive performance and attitude change, and interaction effects among independent variables. One dissertation underway is concerned with the specification of the educational production functions currently in vogue.

Some of our present activity is being directed toward the effects of economic education programs on basic skills development.

In sum, our selection criteria always tend to look at the learning of economics in terms of costs and benefits. To the extent that we can enhance the real or perceived benefits, we shift the demand function to the right. To the extent that we reduce the perceived or real costs of learning, we also shift the supply function.

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[11] Attributed to him by Learmer. op. cit. and James Buchanen.

In concluding, I suspect that while these kinds of research activities will be very useful in developing materials and instructional strategies, I think the biggest pay-off for better economic understanding still is to be found in unlocking the door to the elementary and high school classroom.

As I have indicated, we have a well-organized body of knowledge, and have acquired a good measure of success in finding more effective ways of communicating these concepts.

A Brief List of Sources

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C. Research In Science and Mathematics Education

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